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SIXTY-SEVENTH BOARD OF DIRECTION, I. S. P. E.  
(See Page 2)



**THE ILLINOIS ENGINEER, MARCH, 1951—VOLUME XXVII, NO. 3**

Address all communications to the Society at 631 East Green St., Champaign, Illinois.  
The Society is not responsible for statements made or opinions expressed in this publication.



# ILLINOIS SOCIETY OF PROFESSIONAL ENGINEERS, Incorporated

Affiliated with the National Society of Professional Engineers

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\* This refers to Annual Meeting at which present term expires.

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### Registration Laws

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### State Building Code

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### State Engineering Employees

A. M. Frost, Chairman, Gustav Rehm, Ca Jenkins.

### U. S. G. S. Mapping

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ILLINOIS ENGINEER: W. A. OLIVER, *Editor-in-Chief*; H. E. BABBITT, *Associate Editor*; P. E. ROBERTS, *Correspondent to American Engineer*



# Of Professional Interest

## CENTRAL ILLINOIS CHAPTER ACTIVE IN CIVIL DEFENSE

(From Decatur Herald)

Chairmen in radiological, engineering, and chemical divisions of the city's civil defense organization have been announced by President Herman W. Dorn of the Central Illinois chapter of the Illinois Society of Professional Engineers.

Col. W. Lutz Krigbaum, civil defense director, asked the chapter to supply the top personnel of the divisions. "We're trying first to find the heads of groups where professional men are needed, and we're trying to get the best," he said.

Division heads announced are:

Dr. Clarence E. Ireland, A. E. Staley Mfg. Co. chemical, radiological division.

John A. Askren, Staley mechanical engineer, engineering division.

Dr. W. D. Hatfield, Decatur sanitary district superintendent, chemical division.

Chairmen in the radiological division are:

Herman C. Tille, Black & Co., interdepartmental liaison.

Andrew W. Neureuther, Staley chief engineer, technical direction.

Harry Meinert, high school teacher, personnel; Russell W. Carter and Alvin C. Conway, security and public information; William M. Royer, Staley, plans and operation; C. F. Gebhardt and Alden G. Foley, Staley, logistics.

Chairmen in the engineering division:

A. A. Brensley, Warren & Van Praag; Dr. Hatfield, and James F. Nolan, city engineer's office, sanitary branch.

John F. Sweetnam, Contractor Floyd Birt, City Engineer John M. Weir, Commissioner Homer L. Chastain and City Building Inspector Roy D. Whitten, structural engineering.

Frank Hunt and John R. Castle, Illinois Power Co., and Morris M. Johnson, Illinois Bell Telephone Co., electrical, heat, gas and power.

Chairmen in the chemical defense division:

Fred J. Bandelin, Flint Eaton Co., organization and training.

George N. Cornell and Nat Kessler, Staley, plans and operations.

City Chemist Gerald L. Davis, procurement and supply.

## COST OF LIVING INDEX

The correction factor to be applied to the I. S. P. E. schedule of Minimum Fees and Salaries was 181.6 for January, 1951. The factor is based upon the U. S. Department of Labor's most recent Consumer Price Index.

## PRESIDENT'S MESSAGE

### What Can I Do for My Profession?

So often you hear the question, "What can the Society do for me?". While that is a natural question and must be answered if we are to convince engineers that they should be members of our Society, it seems to me that the most important question is, "What can I do for my profession?".

At the present time there is a shortage of engineers for the future. This shortage if of long duration will have serious consequences on the members of the profession. There will be more than the ordinary share of anxiety and overwork due to a few having to do the work of many.

The most serious consequence, however, will be suffered by the public since it must defer to a later date projects which mean much to the general welfare, health and safety of all the people. This will mean a slowup in the development of projects essential to the enjoyment and comfort of our everyday life. It will delay the advance of our standard of living. It will also seriously cripple our ability to defend ourselves.

Our Society recognizes the need to do something about this now and is asking the members to assist high school counselors in an attempt to get more high school graduates to study engineering in college. It seems that here is an opportunity to serve our profession by providing ample professional engineers for the future.

A brochure has been prepared as an aid in stimulating interest. Let your State Secretary know how many of these brochures you will need.

This can be a very worthwhile chapter project. Let us not be shorthanded for the future.

VIRGIL E. GUNLOCK

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## READ THE ADVERTISEMENTS

### SUBSCRIPTION RATES

\$2.00 per year in advance to members of the Illinois Society of Professional Engineers. \$4.00 per year in advance to non-members in U.S.A. and its possessions, Canada, and Mexico. Foreign \$6.00. Single copies 40c. Published by the Illinois Society of Professional Engineers, Inc., at 631 East Green Street, Champaign, Illinois.  
Entered as Second Class Matter April 27, 1949, at the Post Office, Champaign, Illinois.



# Structural Engineering Conference

## University of Illinois April 17 and 18, 1951

The Civil Engineering Department and the Division of Extension Services of the University of Illinois are sponsoring an Illinois Structural Engineering Conference to be held at the University of Illinois in Urbana, April 17 and 18, 1951. This conference will emphasize the general planning of structural engineering projects and the recent developments in the structural engineering field.

The general plan of the program is as follows:

### General Planning of Structural Projects.

Design of Superstructure.

Design of Substructure.

Problems of the General Contractor as Influenced by Design.

Problems of the Fabricator as Influenced by Design.

### Recent Developments in Structural Engineering.

Limit Design.

Pre-Stressed Concrete.

Welding.

Current Research.

Further information may be obtained by addressing an inquiry to the Division of Extension Services, University of Illinois, Urbana.

### COVER PICTURE

#### 67th Board of Direction of the Illinois Society of Professional Engineers

Top row, left to right:

J. R. Gardner, Central Illinois; R. G. Brichler, St. Clair; S. A. Simonson, Lake; L. S. Pappmeier, Kewanee; Dwain Wallace, Peoria; W. E. Willis, Madison County; John W. Henline, Ambury; A. Robert Jones, Junior Representative.

Second row, left to right:

John Guguid, Rockford; F. L. Dunavan, Illinois Valley; Robert Ray, Dukane; L. K. Crawford, Capital; Wm. A. Oliver, National Director; H. F. Sommerscheidt, Chicago; E. W. Lehmann, Campaign County.

Bottom row, left to right:

P. E. Roberts, Assistant Secretary; H. E. Babbitt, Secretary; A. Douglas Spicer, Vice-President; Virgil E. Gunlock, President; George E. Ekblaw, Past President; S. L. Stolte, N. S. P. E. President; C. E. Rogers, Joliet.

F. W. Edwards, I. E. C. Representative, was not in the picture.

### POSITION AVAILABLE

The N.S.P.E. Washington office has recently been informed of the immediate need for an electrical engineer to be in charge of all electrical work on a major U. S. Pacific installation. Salary \$12,000 per year. Several years' work involved on yearly contracts. Interested applicants should contact immediately:

Bourne Associates

Dupont Circle Building

Washington, D. C.

Attention: Commander Orth

### VOX SECRETARII

P. E. ROBERTS, Assistant Secretary

#### Membership

Membership was reviewed and discussed at length at the 66th Annual Meeting. One of the most interesting statements of the Society's membership problems came from Dean William L. Everitt. In substance he said that the Society must do a better job on the chapter level educational programs, vocational advice service to the community, then membership problems will become more easily solved.

The Society began 1951 with a few more than a total of 1,800 in all grades of membership. With normal attrition, there must be 300 applications received and processed during 1951 to finish the year with a total of 2,000. Now is the time to get those new applications filled out and sent to the Secretary's office.

#### Dues Payments

Second notices were put in the mail February 24. Collection of dues for this year is not equal to the amount received last year at the same time in spite of the fact that there seems to be as much or more money in circulation as any time in the last ten years. We have marked the lack of immediate response to forgetfulness so if you are one of those who forgot, will you please do a string around your finger and send that check in once? Thanks.

#### Advertising

The *Illinois Engineer* has more advertisers and a few more inches of space contracted for than a year ago but help from the Chapters in securing a dozen more professional cards and a few more pages of display advertisements will be appreciated. Prices are the same as the rate card on application to the Secretary's office.

### AT THE 66th ANNUAL CONVENTION

(See Facing Page)

(1) Left to right—Mrs. J. C. Dietz, Mrs. G. E. Ekblaw, Mr. H. E. Babbitt.

(2) Left to right—Mrs. A. F. Hanson, Mrs. W. L. Everitt, Mr. J. G. Clark, Mrs. H. E. Hudson, Mrs. P. E. Roberts, Mrs. E. Kemp.

(3) Left to right—David Abbott, A. R. Boudinot, L. S. Pappmeier, J. P. Dahlberg, A. R. Lundgren, J. S. Pappmeier.

(4) Left to right—S. L. Stolte, J. J. Woltmann, George Ekblaw, H. E. Babbitt.

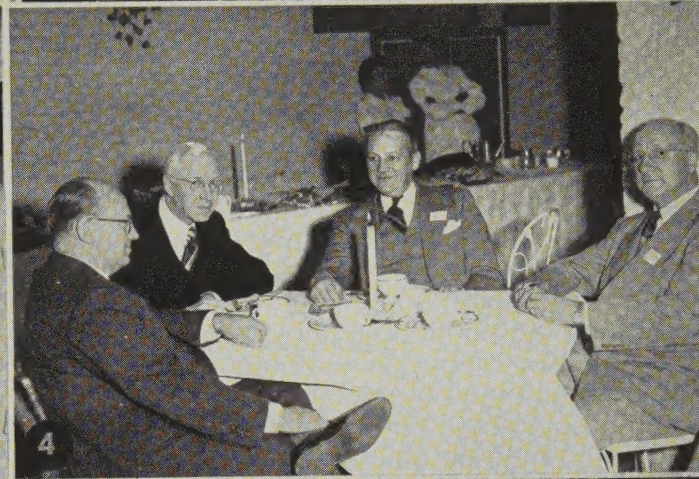
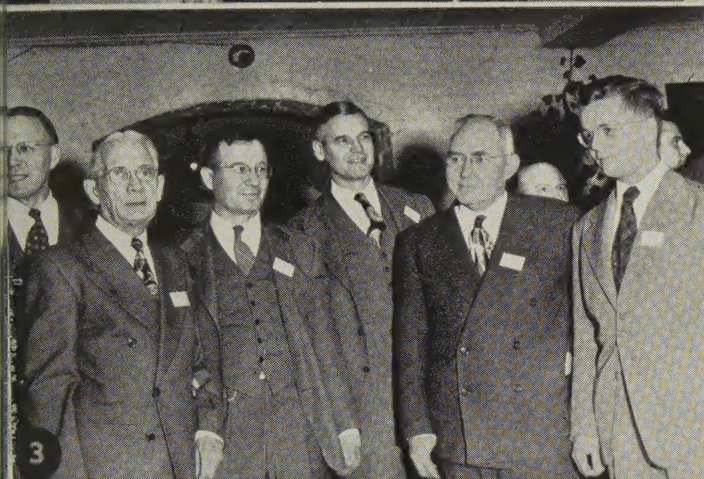
(5) Left to right—A. R. Boudinot, C. H. Tapping, L. C. Miller, R. D. Wilson, E. M. Anderson.

(6) Left to right—H. E. Babbitt, Alois Graf, V. E. Gunlock, S. L. Stolte.

(7) Left to right—A. R. Jones, H. E. Hudson, J. C. Dietz, G. J. Stepanek, A. F. Hanson.

(8) Left to right—Mrs. E. W. Tooker, A. Douglas Spicer, W. E. Willis, F. L. Dunavan.







## ITEMS OF PERSONAL INTEREST

*This column is read and enjoyed. Send in items (any item of a personal nature is good copy) concerning yourself or your friends. Give us the facts. We'll write them up for you.*

W. J. (Bill) Putnam missed both the 66th Annual Meeting and a week of very cold weather. He visited his grandchildren in California between semesters.

\* \* \*

John W. Briscoe, Secretary, Champaign County Chapter, has been recalled to active service in the Air Corps. He is stationed at Chanute Field and will continue to live in Champaign for the present. Several other members of the Society have received their warning letters from the Armed Services. If and when they go on active duty, the Secretary's office would appreciate notification.

\* \* \*

Lee Stickler left for Naval Duty March 6th.

\* \* \*

James F. Halsey, formerly with the Dept. of Theoretical and Applied Mechanics, University of Illinois, has accepted a position with the civil engineering section of the Silas Mason Company, Iowa Ordnance Plant, Burlington, Iowa.

\* \* \*

President Virgil E. Gunlock spoke at the Highway Engineering Conference on Thursday, February 22nd, dedicated the Dearborn-Milwaukee Subway in Chicago on Saturday, the 24th, left on Sunday for Toronto to serve as consultant in helping solve some of the subway problems, then went to Washington to attend the State Presidents Conference of NSPE on March 3rd.

### NEW MEMBERS FOR FEBRUARY, 1951

#### National

Ernest J. Beatty, P. O. Box 18, Urbana, Ill. (Champaign County Chapter)

Frederick D. Berry, 22 Highway Blvd., North Pekin, Ill. (Peoriarea Chapter)

Joe P. Farrow, P. O. Box 505, Bloomington, Ill. (Central Illinois Chapter)

P. E. Kollehner, Jonesboro, Ill. (Egyptian Chapter)

Henry Miller, 8 S. Dearborn Street, Chicago, Ill. (Chicago Chapter)

George E. Simmons, 1309 W. Glenn Avenue, Springfield, Ill. (Capital Chapter)

Frank J. Tobin, 310 Lorraine Avenue, Waukegan, Ill. (Lake County Chapter)

#### Affiliate

Joseph P. Gariboldi, Humphrey & Sons Co., Joliet, Ill. (Joliet Chapter)

Harry S. Humphrey, Jr., The Maples, Joliet, Ill. (Joliet Chapter)

Harry L. Kistler, 1905 Sixth Street, Peru, Ill. (Illinois Valley Chapter)

#### E-I-T

Curtis T. Milliman, 117½ W. Division, Kewanee, Ill. (Kewanee Chapter)

Melvin L. Toepke, 414 East South Street, Kewanee, Ill. (Kewanee Chapter)

#### Junior

Domenick P. Viterisi, Rt. No. 1, Box 162, Herrin, Ill. (Egyptian Chapter)

#### Student

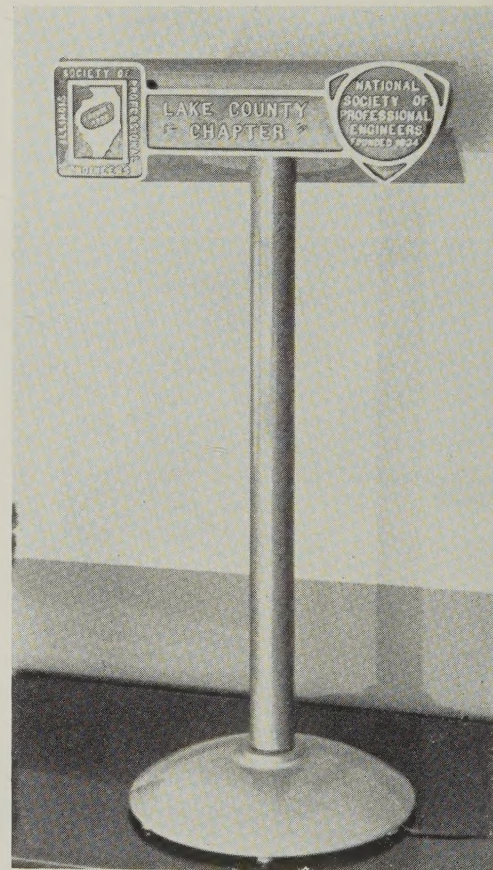
Walter E. Deuchler, Jr., 3 Calumet Avenue, Aurora, Ill. (Champaign County Chapter)

James S. Stein, 1009 W. Springfield, Urbana, Ill. (Champaign County Chapter)

#### Honorary

Arthur C. Willard, 1203 West Nevada, Urbana, Ill. (Champaign County Chapter) (Former State Member 1934-1947)

### SPEAKER'S STAND PRESENTED TO LAKE COUNTY CHAPTER



The cut shows a speaker's stand designed by S. A. Simonson, Representative of Lake County Chapter to the State Board and recently presented to that Chapter. Mr. Simonson is Works Engineer with the Chicago Hardware Foundry Company of North Chicago.

In Colorado, so the story goes, a motorist gave the judge this reason for driving while drunk: "You Honor, I was in no condition to walk."



# The Highway Situation in Illinois

THE HONORABLE CHARLES P. CASEY

*Director, Department of Public Works and Buildings, State of Illinois*

(Presented at the 66th Annual Meeting)

I am happy to have this opportunity to be with the members of the Illinois Society of Professional Engineers. I wish I could assure you at the outset of these remarks that you are about to listen to a happy and optimistic message. Unfortunately, that is not possible, because there is nothing happy or optimistic about the Illinois highway situation, which is the subject I am going to discuss.

It is no exaggeration to report that the rehabilitation of our primary highway system is the most critical problem which today faces the state government and you as citizens of Illinois.

The simple truth is that unless more state revenue is provided for road construction, and provided promptly, much of our 12,000 mile primary highway system will deteriorate to the point where it will no longer be feasible to maintain it.

As of today, some 3,300 miles of the state network are obsolete or worn out. At the current level of state expenditures for highway construction, about 7200 miles or 60 per cent of our primary road system will be in equally bad shape within the next eight years.

If this happens, the disruptive effect upon the whole economy of Illinois will be incalculable because these roads comprise the heart of the highway transportation system of Illinois. They carry 75 per cent of all the motorized traffic outside of cities. The extent of this load may be visualized when you consider that miles of motor travel in Illinois in 1949 reached 23,107 millions, and for the first six months of last year, 11,914 millions. These are the great, most-heavily traveled trunk lines which connect the cities of Illinois. Upon them, more than 1,100 of our communities depend entirely for transportation because of lack of railroad facilities. Approximately 98 per cent of all our farm products is trucked over them to marketing points. These are the roads over which some nine million people travel each year to visit the Illinois state park system. These roads have been mainly instrumental in producing a vacation travel income—mostly from motorists—estimated at three hundred and fifty millions of dollars annually. And last, but not least, they are the roads which in time of war are expected to carry millions of tons of strategic materials.

If the Illinois primary highway system is to be saved, engineering experts reported three years ago, it would be necessary to expend \$149,263,400 each year on road construction alone, based on 1947 prices, during the ten-year period ending in 1958.

This minimum annual expenditure necessary to save the state's primary highway system is not the estimate

of state engineers alone. It also represents the figure arrived at by a joint committee of the National Congress, which surveyed road construction needs of all the states, and by the firm of Griffenhagen and Associates of Chicago, consultants in public administration and finance, in their 1948 report on a highway improvement program for Illinois. This report was made for the Department of Public Works and Buildings for transmittal to the Illinois Highway and Traffic Problems Commission of the General Assembly.

In the first three years (1948, 1949, and 1950) of the ten-year period covered by these estimates, Illinois, because of inadequate revenue, has been able to expend only a fraction of the amount the experts assert is necessary to rehabilitate the paved highway system. If the prevailing rate of revenue continues unchanged, the next seven years hold no better prospects.

Practically every section of Illinois has been affected by this lack of road construction funds. Because of it, we were compelled to postpone indefinitely the schedule of highway improvements totaling some \$75,000,000 which otherwise could have been placed under contract during the present biennium.

The question is frequently asked why the State, which collects between ninety and one hundred millions annually for its road fund in gasoline taxes and motor license fees, cannot devote greater amounts to actual road construction. The answer is that out of more than \$41,000,000 collected last year in motor license fees, less than two and a half million could be used for highway construction. Out of more than 68,000,000 collected in motor fuel taxes, only about \$19,000,000 could be devoted to highway improvements. The rest of the money is used for other purposes in state government.

Under such conditions, of course, our annual bill for road maintenance is bound to increase sharply every year. The 1950 outlay of slightly over \$17,000,000 for this purpose is expected to jump to \$22,000,000 during the present year. Thus, if the state were compelled to continue on the prevailing revenue basis, the time is not so far distant when maintenance will devour the whole road fund, leaving nothing for highway construction. In the meantime, the closing of many miles of the primary road system because they will not be fit for traffic is a distinct possibility.

It is generally agreed that an increase in the present three-cent state gasoline tax, plus an equalization of truck and passenger car fees, is the most feasible method for providing the means to save our highway system. Illinois has had its present three-cent gasoline tax for the past twenty-one years. It is among the five states



having the lowest in the Nation. Since the war, some twenty-eight states faced with a similar problem as Illinois, have increased their gas tax. Moreover, proposals for increased highway-user taxes or bond issuance, or both, to provide additional highway construction revenue, are being submitted to more than half of the legislatures convening this year.

It was true in 1948, and I have no information to indicate any change in the situation, that with one exception, every state got a larger proportion of its gas tax for state highway purposes than does Illinois, which with the largest mileage of rigid-type pavement in the United States, gets only  $33\frac{1}{3}$  per cent. For example, California got 52.2 per cent, Florida 61.1, Indiana 59.1, Massachusetts 84.2, Michigan 80.5, Missouri 100, New York 35.5, Pennsylvania 79.6, Texas 67.8, and North Carolina 95.6. The national average is 63.7. This more generous allocation of motor fuel revenues to their state highway needs, is reflected in the fact that many of these states are able to carry on road construction programs on a scale far greater than is possible proportionately in Illinois.

Under the present three-cent gasoline tax in Illinois, the amount the motorist pays accounts for only one-fifth of one cent per mile of the cost of operating an automobile. A two-cent increase in the state gasoline tax, therefore would cost the average motorists about \$1.10 per month. This slight advance in the operating expense per car now, under an increased tax would result in future economy savings many times that increase. It would enable the state not only to match all federal aid allotments as they become available from year to year, but to have enough left over to finance a necessary annual road construction program. At the present level of state road construction revenue, we are certain to lose approximately \$20,000,000 in federal aid secondary funds allocated to Illinois from current federal appropriations.

I do not believe that an increase in the gasoline tax would necessarily involve a proportionate advance in the retail price of gasoline in Illinois. All of the data we have been able to accumulate on this question convinces us that there is no reason for fear in this respect. Last year, we completed a survey that demonstrated that in five outside states which imposed a four-cent gas tax, one cent higher than in Illinois, retail prices were substantially lower than those charged at that time in Springfield, Illinois. Practically every other state in the Union, where taxes are higher than in Illinois, showed no proportionate increase in retail prices. The survey indicated that any raise in the Illinois tax would be absorbed by the oil companies and not passed on to the Illinois consumer.

Of course, any change in gasoline revenue or license fees to give the state more adequate road construction is a matter which must be passed on by the 67th General Assembly now in biennial session at Springfield. Governor Stevenson has recommended to the legislature that

truck, bus, and trailer license fees should be equalized on a ton-mile basis with the fees and taxes paid by passenger cars, and that the motor fuel tax rate be increased 2 cents per gallon. The Governor proposes that the 5 cent per gallon tax be distributed 40 per cent to the state, 30 per cent to the cities, and 30 per cent to the counties, of which one quarter shall be spent on township roads for not to exceed three years pending consolidation of local road districts.

The Governor pointed out in his message that heavy trucks do the most damage to our highways while the heaviest taxes are paid by the light vehicles which do the least damage. The statement is borne out by surveys which our Division of Highways has conducted in Illinois, by similar research in other states, and by the Maryland road test now being conducted and in which Illinois is a participant. The over loaded truck is the great destroyer of our hard roads in Illinois, a state which now imposes about the lowest truck fees in the entire nation.

The ton-mile equalization fee would assess heavy trucks the same proportionate sums as passenger cars. Under our present system, a great and unfair disparity exists between the two. If we assume that the average passenger car weighs 1.7 tons, or 3,400 pounds, that it consumes 600 gallons of gasoline a year on which \$18.00 is paid in motor fuel tax while traveling 9,520 miles a year, that the average annual license fee paid on passenger cars is \$9.59, we find that passenger cars pay an average tax of one and three-quarters mills per ton-mile or a state tax of \$1.75 for every thousand ton-miles traveled.

If we apply a similar computation to trucks, we find how much less their tax payments are on this ton-mile basis. It will figure out that the average "X" truck having a gross weight of 12 to 20 tons, for instance, pays only 92 cents per thousand ton-miles as compared with the \$1.75 paid by passenger cars.

If more money is to be raised from motor users taxes for highway purposes, inevitably motorists and truck operators will have to pay it. The ton-mile method is the only one so far advanced in this State for an equitable distribution of this added burden.

If the program advocated by the Governor is adopted by the legislature the resultant increase in motor fuel revenue will double the state's share of funds from this source of revenue. In addition, the motor license fee from trucks can be expected to increase by approximately \$28,000,000 a year. From these figures, it is readily apparent that the Illinois Highways Division will be in far better shape to solve its critical highway problem than it is now, even though the additional revenue will still leave us far short of the totals actually needed to meet requirements as defined by the engineering experts.

You probably already have heard the argument advanced, and you will hear it more frequently as the

(Continued on page 11)



# Chicago Chapter News

Illinois Society of Professional Engineers

Affiliated with the National Society of Professional Engineers

Editor—Theodore Olson

160 N. LaSalle Street

Room 1020 — Chicago 1 Financial 6-2000

## President's Message

President George L. Dement stated that the two main objectives of the Chicago Chapter for the year 1951 are:

1. To increase the interest and representation of the electrical, chemical and mechanical engineers in the Illinois Society of Professional Engineers.
2. To provide for an aggressive public relations program that is keyed into the activities of the National Society of Professional Engineers.

## Annual Meeting

December 5, 1950

Raymond D. Meade, former Director of the Korea Technical Institute, will write an article for the American Engineer on the subject, "Observations of Korea." Kenneth E. Trombley, Editor of the American Engineer, has requested this article for use in a special National Defense issue. Members who heard Mr. Meade talk on this subject at the annual meeting will be looking forward to reading about Korea from the former director.

The following officers were elected for 1951:

President—George L. Dement, Assistant Chief Engineer, Chicago Department of Subways and Superhighways.

Vice-President—Frank W. Edwards, Director Department of Civil Engineering, Illinois Institute of Technology.

Secretary-Treasurer—John Dolio, Consulting Engineer, Shaw Metz & Dolio, 208 South LaSalle Street.

Chapter Representative—Harold F. Sommerschield, Portland Cement Association.

## Meeting Notice

March 6, 1951

Wayland B. Ceradquist, Gardner, Carton and Douglass, 33 South Clark Street, Chicago, will talk to this Chapter at its March 6th meeting. This will be a dinner meeting. The subject of Mr. Cedarquist's talk will be "Bringing the Illinois Constitution Up to Date." There will also be appointments for Chairman to the following committees: Advertising, Legislative Analyzing Committee, Civil Defense Committee, and State Building Code Committee.

## Monthly Meeting

February 6, 1951

The meeting was devoted exclusively to discussion as to "What can this Chapter do in relation to improving the economic status of the engineer." There was no program and the meeting was turned over to the members present and the remarks by everyone came fast and furious. President George Dement is calling a meeting of the executive officers of the society to further consider all the various facets.

William F. Thornton, 108 North Dearborn Street, started off the discussion of how best to improve the economic status of the engineer by suggesting that we should, as a group, adopt resolutions and back up minutes of public policy including the F.E.P.C. and the strict enforcement of the Professional Engineer License Law, together with working towards the goal of having the City of Chicago or any other city amend their building codes so as to allow the professional engineer to enjoy the same status in the making and sealing of plans that is provided for under state license law.

A. W. Graf, Patent Lawyer, 235 South LaSalle Street, presented the following to improving the economic status of the Engineer and this Chapter has adopted the three points as a guide in how the two main objectives of the Chicago Chapter, presented by our president, can best be achieved for the year 1951:

1. Create greater consciousness of the engineering profession:

- (a) Cooperate with I. E. C. and publicize activities.
- (b) Publicize I. S. P. E. among members of I. E. C. societies, manufacturing companies and engineering firms.
- (c) Give each speaker at our meetings a copy of N. S. P. E. Code of Ethics, and copy of objectives of I. S. P. E.
- (d) Devote a meeting to honoring outstanding boss who has endorsed and encouraged employees activities in technical and professional engineering societies. Invite other bosses as guests. Have good speaker and entertainment. Give Code of Ethics and I. S. P. E. objectives.
- (e) Publicize achievements of members in civic and professional matters.
- (f) Establish speakers bureau.

2. Initiate cooperative effort to minimize inequalities in positions of engineers:

- (a) Study "Little Hoover" report of state to determine its effect and make recommendations.
- (b) Study civil service and other forms of appointment or election of engineers to positions or offices.
- (c) Study statutes to uncover inequalities in requirements for engineering services.
- (d) Prepare survey report on status of engineers in various state departments, industry and engineering firms.
- (e) Cooperate in initiating legislation to bring up-to-date engineering requirements by cooperation with I. E. C. and other societies.

3. Plan for the future:

- (a) Continue to develop student interest in professional consciousness by an award or recognition.
- (b) Supply at least one speaker for each student engineering society.
- (c) Cooperate in Occupational Guidance Clinic.
- (d) Watch for examination results of Registered Professional Engineering Act for Engineer-in-Training people and invite them to join I. S. P. E.
- (e) Follow progress of Exploratory Group to consider the increased unity of the engineering profession.



# News From Chapters

## Central Illinois Chapter

The Central Illinois Chapter of the Illinois Society of Professional Engineers held its regular monthly meeting on Thursday evening, December 21, 1950, at the American Legion Hall. There were 24 members and guests present.

Following the dinner President John Askren discussed the matter of our participation in the Civil Defense program. Dr. W. D. Hatfield and H. L. Chastain presented further discussion on the subject. Motion was made and carried that the new President appoint a committee to cooperate with any and all organizations connected with the Civil Defense Committee.

President Askren also stated that he would prepare a written report of the year's activities of the Central Illinois Chapter. He called attention to the fact that the first annual "Engineer's Week" will be observed during the week of Feb. 18 next.

Publicity Chairman Nat Kessler reminded the members that the National Society of Professional Engineers is asking for contributions to carry on an enlarged program of Public Relations.

Mr. Floyd Birt, who was appointed Chairman of a Committee to study and report on the question of increasing the state gasoline tax, gave a very good explanation of the various problems involved. He also gave reasons why we should favor the increase in state gasoline tax and presented a resolution for our adoption. After considerable discussion the resolution was adopted with the request that the Secretary send copies to the proper state officials.

President John Askren read the list of new officers as presented by the nominating committee at the November meeting and called for further nominations from the floor. There being none, the following officers were declared elected:

President—Dr. Herman W. Dorn

Vice-President—Barclay F. Behrendt

Director—John F. Sweetnam

Chapter Representative—John R. Gardner

Junior Board Member—Robert Schwartz

Dr. H. W. Dorn accepted his new office with thanks and asked that the present committees carry on their duties until the new committees can be arranged. Meeting adjourned at 9:30 p.m.

The January meeting of the Central Illinois Chapter was held in the Staley Club House on Thursday evening, January 25, 1951, with an attendance of 44 members and guests.

Dr. Herman W. Dorn took over his new duties as president, and asked for suggestions as to the type of program we might follow in observing the first annual "Engineer's Week" from Feb. 18 to 25. He also read a letter from President Truman addressed to Mr. S. L. Stolte, President of the National Society of Professional

Engineers, which emphasized the importance of the engineer in our lives today.

Nat Kessler announced a meeting on "Quality Control" which will be held in the Orlando Hotel on March 2nd.

President Dorn called attention to the Annual State Convention to be held in Urbana on Feb. 1, 2, and 3, and asked that as many as possible get together and attend. He also mentioned the spring refresher course to be given in the Decatur High School in the near future.

Arrangements have been made by John Askren for the use of the Staley Club House for each of our monthly meetings during 1951. Our attendance should be increased by having a fixed meeting place for the next year.

Three division heads for Civil Defense were appointed as follows: Radiological Division, Dr. C. E. Ireland, chemist, A. E. Staley Mfg. Co.; Engineering Division, J. A. Askren, mechanical Engr., A. E. Staley Mfg. Co.; Chemical Division, Dr. W. D. Hatfield, Decatur Sanitary District.

A number of sub-committees were also appointed under each of the above divisions.

The program for the evening consisted of two color movies presented by Mr. E. H. Bastedo and Mr. H. Van Valkenberg of the Anaconda Wire and Cable Co. of Chicago. These films showed the complete story of copper wire and cable from the mining of the ore through all the various stages to the finished cables of all sizes ready for use in industry as "the Nerves of the Nation." These films are available to other chapters addressing the above company at No. 20 N. Wacker Drive, Chicago, and they are very much worth seeing.

Meeting adjourned at 9:30 p.m.

FLOYD E. TROXEL, *Secretary*

## Kewanee Chapter

The January 16, 1951, meeting of the Kewanee Chapter of I.S.P.E. was called to order by President Osborn at 8:00 p.m., following dinner at Club 19 in Galesburg. Twenty-seven members and guests were present. Mr. Bronson performed introductions. The minutes of the December meeting were dispensed with, after which committee reports were called for. Mr. Weber reported that \$125.00 had been collected toward the legislative analysis fund and had been forwarded to the State. It was his understanding that insufficient funds had been collected to continue with the program and that the money was to be refunded. Mr. Louis Pappmeier discussed the forthcoming annual meeting to be held in Champaign after which Mr. Osborn discussed publicity for Engineers' Week and after discussion by Mr. Weber and Mr. De Jong, motion was made by Mr. Spicer, seconded by Mr. Weber, that the Chapter follow through with the national publicity program to the best of its ability.



Motion carried. Mr. Quirke, as publicity chairman, was given the published data. A long discussion period by all members present covered the subject of the legislative analyst and Engineers' Week, after which the matter of a Chapter name came up: Motion was made by Mr. Bronson, seconded by Mr. Stanly, that a committee be formed to consider a change of chapter name. Motion was carried, after which President Osborn appointed Mr. Weber chairman of such committee, with Mr. Quirke as a member and with Mr. Weber to select a third member and to report back at an early date.

There being no further business, the meeting was turned over to Mr. Harold Pappmeier, who introduced Mr. L. R. Wilkinson of the Tidewater Oil Company of Galesburg, whose subject was "Lubrication: Then and Now." Mr. Wilkinson traced the early developments of lubrication from the days of the Roman Chariot to the present day and dwelt at some length upon the humanitarian problems which have paralleled these developments.

The meeting was officially adjourned at 9:50, but informal discussion continued until a much later hour, and it was generally agreed that it was an excellent meeting.

A. D. SPICER, *Secretary pro tem.*

### Madison County Chapter

Our Annual Meeting was held Dec. 12, 1950, in the "Annex" of the Episcopal Church in Alton. A complete turkey dinner was served to 20 members and 16 guests, including wives.

After introduction of guests, President Flagg reviewed some of our achievements of the past year. He also pointed out some remaining objectives for the year to come, and urged the members to take more time for activities, such as Public Relations, Civil Defense, and Expanding our membership.

The new officers responded to introduction with appropriate remarks, and the meeting was turned over to Program Chairman Graham. A group from Alton Little Theater presented "An Evening of T-V," consisting of magician, musical and other numbers, a quiz program with prizes, and square-dancing in which all were invited to take part.

\* \* \*

Our meeting of January 9, 1951, was called to order by President Shanahan at the Edwardsville Gun Club, with seventeen members and four guests present. Minutes of the November meeting were approved as read.

President Shanahan named a list of Chairmen of the Chapter Committees.

Mr. Corlew reported for the Civil Defense Committee, and Mr. Flagg read a proposed questionnaire for member information, to be used in cooperation with other Civil Defense groups. Mr. Visser suggested other items of professional interest to our own members which might be included in a questionnaire.

Mr. Willis' report for the Legislative Analyst Committee was followed by several suggestions to combine funds of other groups for support of a Legislative Analyst.

Program Chairman Graham then introduced Mr. Herb McCoy of Collinsville, who spoke on "Civil Defense." Mr. McCoy stated that the atomic bomb has brought a new era in warfare, with every part of the world vulnerable to delivery by plane or submarine. After a period of questions and discussion, the meeting adjourned.

\* \* \*

Freezing rain cut the attendance to less than a quorum for our meeting of February 13, 1951, in the Quonset Building of the Shell Refinery, Wood River. Two Navy films were shown. One showed some of the grim realities of the last war. The other dealt with the "Sea-bees" preparedness program which might help to minimize future trouble.

L. K. MEYER, *Secretary*

### DuKane Chapter

The Annual "Ladies' Night" Dinner was an event of Thursday evening, February 15, 1951, our regular meeting night. Due to extremely bad road conditions prevailing, the turnout was somewhat small, but 39 members and guests enjoyed a tasty baked ham dinner served at the Red Lion Inn. The regular business session was dispensed with by President Bateman, who then turned the meeting over a Program Chairman Bloomberg, who, after commenting briefly on National Engineers' Week, turned to Guest Speaker Karl Lehr. Mr. Lehr is an instructor in the Social Science Departments of the Elgin High School and the Elgin Community College. He directed his remarks to altering the popular belief that George Washington, the Engineer whose birthday we honor next week, was a staid and conservative man as he is ordinarily pictured. Instead he described him as having extraordinary drive and ambition, as being adventuresome and fearless, and as being a very successful surveyor and an astute businessman.

Following Mr. Lehr's remarks, dancing to the music of Lois Rugh and her "Swingetts" held the attention of the group until about 11:30 p.m.

GEORGE M. BOOTH, JR., *Secretary*

### Lake County Chapter

The Lake County Chapter of the Illinois Society of Professional Engineers held its monthly meeting Wednesday evening, January 17, 1951, at the Swedish Glee Club in Waukegan with 83 members and guests present for dinner.

Incoming President Chauncey L. Calkins called the meeting to order promptly at 8:00 p.m. After a brief message of welcome and an expression of the prospects for 1951, the minutes were read and approved and the



treasurer's report was made and approved. Mr. Calkins announced his selection of Committee Members and then turned the meeting over to Mr. Drew who introduced the speaker of the evening, Lt. Minwegen.

The speaker outlined the official government program and organization for civil defense, discussed the new factor in civil defense introduced by the atomic bomb, and passed around radiation detection devices for inspection. Then a movie, "Battle for Britain," which showed how a good civil defense organization "paid off" for Britain in World War II, was shown after which Lt. Minwegen answered numerous questions relating to the atomic bomb and atomic defense.

The meeting was adjourned at 10:45 p.m.

R. G. KRAMER, *Secretary-Treasurer*

### Joliet Chapter

The Joliet Engineers' Club held its regular meeting on January 23, 1951, at Little Jack's Restaurant.

The business meeting was called to order at 8:10 p.m. by President William S. Gray. President Gray called for the Secretary to read the minutes of the December 19, 1950, meeting. There being no corrections to the minutes, they were accepted as read.

Mr. C. E. Rogers asked the cooperation of all the members of the club in paying dues and also requested as good attendance as possible of our club at the annual state convention.

The meeting was attended by 20 members and seven guests.

Mr. Dan Albrecht, Managing Editor of the Joliet Herald News, presented his topic of the evening, "The Press in Time of World Crisis." Mr. Albrecht in his talk pointed out that our government is the biggest investment we have and it is our duty to keep ourselves well informed. We have the only real free press in the world and it is our duty to support this freedom by not making offhand or irresponsible remarks on important problems as our opinions are important and go a long way towards molding public opinion. You have to work to be an American.

The meeting was closed at 9:45 by President Gray.

\* \* \*

The Joliet Engineers' Club held its regular meeting on February 20, 1951, at Little Jack's Restaurant. The business meeting was called to order at 8:00 p.m., by President William S. Gray. President Gray called for the secretary to read the minutes of the January 23, 1951, meeting which were accepted into the records as read.

There was a long discussion as to the advisability of having a "Brawl" this summer as we have in the past or having a family picnic to take its place. It was finally decided to have the "Brawl" and also to have a Ladies' Night some time later in the fall. Mr. Joe Wallace volunteered the use of his farm grounds in connection with the annual "Brawl," committee for which is to be named later.

The meeting was attended by 33 members and two guests. The secretary pointed out that the membership attendance was almost double that of the meeting held at the same time last year which was most gratifying.

The program was presented by the Aluminum Company of America in the form of a 36-minute sound film entitled "Unfinished Rainbows" which told the story of aluminum.

The meeting was closed at 10:00 p.m., by President William S. Gray.

WILLIAM S. CHANEY, *Secretary*

### A LAWYER'S APPRECIATION OF THE ENGINEERING PROFESSION

Excerpts from a column written by Mr. Justus L. Johnson entitled, "Now and Then," and published in the Aurora Beacon News

(Biographical Notes Prepared by Mr. Robert Roy.)

*Justus L. Johnson is the Clerk of the Appellate Court for the northern 32 counties of Illinois. He has held that position since 1920. He is a lawyer, former newspaper publisher and does some editorial work as Historical Editor of the Aurora Beacon-News.*

*He was a member of the Illinois Republican State Central Committee from 1918 to 1940, inclusive; was chairman of the committee in 1934 and 1935, and originated the Grass Roots Conference of ten states Springfield.*

*In his younger years he was Secretary and Chief Clerk to the Engineer who built the Chicago, Milwaukee and Gary Railroad.*

*Some of his articles which appear in the Aurora Beacon-News on Sundays under the title "Now and Then" have appeared in the Congressional Record. At times, he has been invited to speak before Engineering Societies.*

One hundred years ago, the United States had few engineers to whom to submit problems.

Progress comes from two sources—romanticism, which is dreaming dreams, and realism, which is ascertaining facts. Engineering is the building of ideas into actualities. It is the balanced employment that converts dreams into realities.

I am using this subject today because few of us realize what a great part engineers have in making and sustaining our living conditions and providing employment. Last week, the Fox River Valley chapter of the American Society of Tool Engineers met here with its subject matter "What's New in Industry." The DuKane chapter of the Illinois Society of Professional Engineers held its monthly meeting last week. This organization is made up of engineers living in DuPage and Kane counties.

Before 1800, the only engineers were military. For centuries, they were the designers of fortifications and keepers of the king's engines: Catapults, battering ram



and sealing towers. To assist the civilian economy, bridges, roads, viaducts, mines and buildings, were largely the product of artisans, developing their designs from experience and from their predecessors. Cotton and flour milling, stone-cutting and shoe-making, were largely family concerns with limited help from their neighbors.

During the Revolutionary War such military engineers as we had came from Europe. In 1802, West Point was founded, not primarily as a training school for officers, but to develop military engineers. For many years the corps of army engineers supervised the academy's functions.

With the march of progress it was realized that engineering had a scientific and economic basis and the corps of engineers assisted in building the Baltimore and Ohio railroad. The lack of American engineers, as late as 1850, made it necessary for the North Western railroad to import British engineers. In Britain the trains run on the left side of the track and they still do on the North Western.

With the development of steam power, larger manufacturing plants became possible and to provide these required civil engineers.

The first engineering school in the United States was the Rensselaer Polytechnic Institute established at Troy, N. Y., in 1824. In 1852, the first national engineering society, the American Society of Civil Engineers, was formed. It included all branches of the engineering profession, as well as architects. With the help of engineers for designing production, small home industries were expanded. Engineering knowledge increased and specialization became necessary. Every important industrial group now uses specialists to design their production and distribution, and there are as many groups of engineers as there are types of employment. Engineers provide more and better plans for production. Application of power and machines multiplied automobile and plate glass production 200 times per man unit at the Ottawa plant of the Libbey-Owens company. Push button operation multiplies output and is the mark of progressive management. Automobile frames are now produced entirely by such a process.

You have more comforts in your homes, you have more means of obtaining a livelihood, you enjoy a higher living standard in America because of the expansion that has been developed by this great profession, designated as engineers.

Without the engineer, with his scientific background, mass production and mass distribution would have been impossible. He provides the unseen force behind management, which has produced the free enterprise system that has made the United States the most powerful and prosperous nation in the world.

In a Tyler, Texas, traffic court a woman gave this excuse for parking overtime outside a women's shop: "Unavoidably detained in a girdle."

## HIGHWAY SITUATION IN ILLINOIS

(Continued from page 6)

pro-and-con debate on the question waxes hotter, that Illinois won't need more road money because the demands of the national defense program will bring serious government restrictions on highway improvements on the state's primary road system. This is not true. Definite assurances to the contrary have been given by Thomas H. MacDonald, federal commissioner of public roads, and Major Gen. Philip B. Fleming, under secretary of commerce for transportation. Apparently there is no intention of curtailing highway construction as was done in the two previous wars. On the other hand, it is very possible that gasoline rationing will come. In that case, of course, the revenue from motor fuel tax for road construction is bound to take a serious drop.

In the foregoing discussion, I have tried to acquaint you with the fundamental facts of Illinois' highway crisis. Its paved road system, once the first in the Nation, now ranks 37th, is rapidly falling to pieces and is headed for a condition where it will rate as one of Illinois' heaviest liabilities instead of a foremost asset. The annual increase in registration of both passenger cars and heavy commercial trucks places an ever-mounting traffic load on the worn and obsolete roads while insufficient revenue holds the state helpless to cope effectively with its greatest problem.

I particularly appreciate the opportunity to present these facts before your organization, because I know that its membership is made of men whose opinions on public problems, such as this one, carry great weight. I am confident that you can render a truly valuable public service if you will make it your concern to disseminate this information to others. It is only by acquainting the largest possible number of the citizens of Illinois with the gravity of the problem that we can hope to have their support in urging the prompt application of measures to solve it.

### THE ENGINEER

E. R. HARRINGTON

In "New Mexico Professional Engineer and Contractor"

**I am an engineer.** That is the way we say it. Simple words. Plain words without any brag. We speak them often to ourselves; sometimes humbly and gratefully. June the four words. But they are really more than words. They are the sum of many lives; the lives of past multitudes and other multitudes yet unborn. They make a declaration to all mankind and they are respected anywhere in the world; any place where the works of man stand. The words are a solemn pledge. A pledge to the people of a new day we shall never see. A pledge to the people who made reality from the cobwebs of dreams; the men who fought and died for an ideal. The words are a thankful pledge to the ancient people who dared to dream dreams before there was a language to write or a tablet to write it on.

**I am an engineer.** The words are a promise to the



great masses of plain people of the world. The words of these plain people come to us if we but listen. "A poor freedom is better than a rich slavery." "Conclusions are never better than the facts they are based on." "My concern is not whether God is on my side but whether I am on His side." "Give me a place to stand and I can lift the world." "Be sure you are right; then go ahead." "Be ashamed to die unless you have gained some victory for humanity."

Good words. Warm laughing words and words as cold as steel. "Anyone can hold the helm when the sea is calm." "Genius is an immense capacity for taking pains." "This is the place. We build the temple here." "What you have done for others and for the world remains immortal." "No man has the right to be wrong." "Into my Father's hands I commend my Spirit."

You can hear the voices of the host of common men down from the ages. You hear them from the ancient forums and market places. You hear them from the legislative halls and from the roar of city traffic or the fields of battle. The words come from the pulpits and the fields; from the factories, the offices and the mines. They echo to you as you walk along the street, as you bend over the drafting table or look through the transit. You hear them in the deserts, in the silent woods and from the roar of blasting in the mine pits.

But the words you hear aren't words any longer. They are a way of life: a design for mankind. They are the beginning of a new day which pledges you to get on the job and do a good day's work. They are the evening whistle which entitles you to go home, to spend an evening at the movies or at the radio with no fear of any gestapo or goon squad threatening you. The words are a pledge of strength to a free people. They are tribute to free man as he attends the church of his choice or stays away as he likes. They state his rights to free speech and his obligation to speak the truth. They declare his right to go to school and learn his trade and the obligation to repay with an honest day's work. They are his right to choose his representatives by secret ballot, a ballot that counts as much as anyone's, and his obligation to be bound by the legislative acts. They are his right to dream dreams and his obligation to serve mankind.

**I am an engineer.** There are many meanings for the four words; meanings that we do not stop to list. Meanings which have grown from the ages but are as yet new as tomorrow. They are the thoughts and dreams of Archimedes, Frontinus, and Da Vinci. They speak the faith of Newton, Davy and Faraday. Four simple words. Plain words that you could write on a postage stamp and have room to spare. Words which could be emblazoned large enough to fill the horizon. You could carve them in the Rock of Gibraltar alongside the inscription which says: "God and the soldier, all men adore in the days of trouble." You could put the words anywhere and they fit because they resound as a pattern of life and a blue-

print for the ages. But the words are best at home, on your own fireside or in the stillness of the night when the stars come down almost close enough to touch. Then you can speak to yourself, softly, proudly, and thankfully: **I am an engineer.**

## BROCHURE FOR HIGH SCHOOL STUDENTS

The National Society of Professional Engineers has prepared an exceptionally fine brochure for high school students on the opportunities for a career in engineering. The information presented in the brochure is excellent in that it gives in a very few words the type of interests which mark the engineering mind and the rewards, economic and spiritual, which can be expected by the members of the profession.

Here is a worthwhile project for any I.S.P.E. Chapter—to place a copy of this brochure in the hands of the year's high school seniors. Copies may be obtained in limited numbers by directing a request to the Secretary, I.S.P.E., 631 E. Green Street, Champaign, Illinois.

In Salt Lake City, a 15-year-old youth, arrested for car theft, was asked by police to explain why he had changed the gear-shift lever so he could shift with the left hand. He said it was done so he would have his right arm free for necking.

## LEE I. OSBORN

Engineer and Contractor



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